



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|---------------------------|---------------------|------------------|
| 10/660,725 | 09/12/2003 | Charles Chester Irwin JR. | ABI002PU | 6965 |

7590 03/20/2007
CHARLES WALTER, Ph.D., J.D.
9131 Timberside Drive
Houston, TX 77025

| |
|----------|
| EXAMINER |
|----------|

NEUDER, WILLIAM P

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3672

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 03/20/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/660,725

Applicant(s)

IRWIN, CHARLES CHESTER

Examiner

William P. Neuder

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 calls for means for controlling the rate of compression. This is not understood. The specification does not set forth the means for controlling the rate of compression. Claim 3 states that the pressure of the natural gas controls the rate of compression. It is not understood how the pressure of the natural gas controls the rate of compression. Claim 35 calls for the means for controlling the rate of compression being a spring-loaded valve. Please clarify and point out the area of the specification that sets forth the means for controlling the rate of compression. All of the dependent claims 2-38 state "the compressor in" this should be --The compressor of--. Claim 3 also calls for the natural gas to control the distribution of compressed gas and the flow of compressing fluid into the compressor. It is not understood how the pressure of the natural gas controls these. Also, applicant is not allowed to claim a naturally occurring element as a structural limitation in the claim. In claim 17, line 2, "with and inlet" should be --with an inlet--. Claim 39 is not understood. It does not appear that applicant has a separate heater, only that the compressor acts as a heater.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: the means for controlling the rate of compression. The pressure of the natural gas alone does not control the rate of compression.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 22-24,39 and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Coney.

Coney discloses a compressor having means 7 to control the rate of compression. Also valves are provided for controlling the distribution of the compressed gas. For recovery and injection using the pressure of natural gas from an oil and gas well is intended use and given no weight in these apparatus claims. As to claim 2, the compressor generates heat and acts as a heat exchanger. Also, valves are provided for controlling stroke frequency. As to claim 3, claim 3 contains no limitations directed to the compressor and therefore does not further limit claim 1. As to claim 4, two

Art Unit: 3672

compressing means are used (see figs 1 and 2). As to claim 22, an electric motor is provided (see figure 5). As to claim 23, a flow control valve controls the hydraulic fluid volume 40. As to claim 24, a gas turbine is provided (see figure 5). As to claim 39, the generator generates heat and therefore is considered a heater. As to claim 40, the intended use of the heated fluid is given no patentable weight in apparatus claims.

Claims 1,3,4 and 39-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Cottle 4007787. Cottle discloses a compressor 30 for use in injection into wells. Valves are provided to control the distribution of the compressed gas. It is not understood what is meant by means for controlling the rate of compression. If the pressure of the produced gas can do this as stated in claim 3, then Cottle inherently controls the rate of compression. As to claim 3, gas from the formation is used as the fluid delivered to the compressor. As to claim 39, all compressors generate heat and are therefore heaters. As to claim 40, the heated fluid is delivered to the formation. As to claim 41, the compressor is used in a lift gas injection system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Neuder whose telephone number is 571-272-7032. The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3672

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



William P Neuder
Primary Examiner
Art Unit 3672

W.P.N.